

CITY OF SUNNYVALE DIVISION OF TRANSPORTATION AND TRAFFIC

GUIDELINES FOR THE INSTALLATION OF IN-ROADWAY WARNING LIGHTS (IRWLs) SYSTEMS

IRWL Systems are a series of flashing lights embedded in the pavement which are intended to provide additional warning to road users of the presence of pedestrians crossing at the crosswalk. The California Manual of Uniform Traffic Control Devices (CA MUTCD) outlines standards and guidelines for the installation of these devices in California, while the Federal Highway Administration Publication Number FHWA-HRT-04-100, provides guidelines for crosswalk improvements.

In an effort to allocate resources where they are most needed and to ensure new IRWL Systems are being installed at locations where these are an appropriate warning device, the City has developed these guidelines per engineering principles and CA MUTCD standards and guidelines. The City of Sunnyvale, Department of Public Works, Division of Transportation and Traffic will follow these guidelines upon request of an IRWL System at a specified location. While these parameters are a valuable guideline to establishing candidates for future IRWL Systems, staff shall also use engineering judgment in determining the adequacy of IRWLs as an appropriate warning device at each location.

While IRWLs are not a required warning device at any crossing, the City will take every opportunity to improve pedestrian safety where appropriate by IRWLs. While there is no funding set aside for installation of warning lights, the City always seeks opportunities for outside grant funding. The implementation of these measures at warranted locations are contingent on the availability and disbursement of such funds.



GUIDELINES FOR THE INSTALLATION OF IN-ROADWAY WARNING LIGHTS (IRWLs) SYSTEMS Staff receives a request for an IRWL System The vehicular approaches to the crossing are uncontrolled (i.e., they are not controlled by YIELD NO IRWL System is NOT WARRANTED signs, STOP signs, or traffic control signals) YES An IRWLs System is NOT WARRANTED at this time. NO The crosswalk is marked The crossing should be evaluated to determine if marked crosswalks are warranted. Staff collects data & ALL the following criteria are met: At least 40 pedestrians use the crossing during each of any two hours (not necessarily consecutive) during a 24-hour IRWLs System is NOT WARRANTED. Staff should NO valuate to determine if other measures (e.g., parking restrictions, or warning signs) are necessary Vehicular volume through the crossing exceeds 200 vehicles per hour during peakhour pedestrian usage. Critical approach speed is 40MPH or less YES Either of the following criteria is met: 1 pedestrian-related collision within the last year and 2 pedestrian-related collisions within the last 5 years where the motorist was found at fault (DUI collisions excluded) OR Minimum Average Daily Traffic (ADT) volumes are as follows: **Minimum ADT Criteria** ≤30 35 IRWLs System is NOT WARRANTED. Staff should NO MPH MPH evaluate to determine if other measures (e.g., parking restrictions, or warning signs) are necessary 5,000 15,000 2 lanes 12,000 9,000 3 lanes >4 lanes with raised median* 12,000 9,000 ≥4 lanes without raised median* 9,000 7.000 *A two-way center turn lane is not considered a median. A raised median or crossing island must be at least four feet wide and 6 feet long to serve adequately as a refuge area There is sufficient stopping sight distance so that IRWL are visible to approaching motorists or NO IRWL System is not an appropriate measure for the obstructions can be removed to provide sufficient crossing and other measures should be considered. stopping sight distance YES Other traditional measures (e.g., signs, parking Other traditional measures (e.g., signs, parking NO restrictions, markings) should be implemented and restrictions, markings) have been tried and proven proven unsuccessful before reconsideration of an unsuccessful IRWL System YES *The final decision of the installation of IRWL An IRWL System is an appropriate treatment and should be installed per CA MUTCD once funding is Systems shall be left to engineering judgment. available.*